

**Amendments to the Specification:**

Please replace the paragraph on page 63, from lines 23-27 with the following amended paragraph:

Thin-layer chromatography was run on silica gel 60 F-254 (EM Reagents) aluminum-backed plates. <sup>1</sup>H NMR were obtained at 300 MHz on a ~~Varian~~ VARIAN VXR-300 spectrometer. Two-dimensional (Cosy) and NOE experiments assisted in the assignment of proton resonances. Elemental analyses were performed by Quantitative Technologies Inc. (Boundbrook, NJ).

Please replace the first paragraph on page 89 with the following amended paragraph:

The accuracy of the prediction algorithm is about +/- 1 and +/- 2°C for PPG containing oligonucleotides and PPG containing MGB-oligonucleotides, respectively. Accordingly, a sequence of interest can be obtained from a source such as ~~Genbank~~ GENBANK, and a T<sub>m</sub> window can then be set as a requirement for a set of probes or primers. Using the algorithm above, and information from the nearest-neighbor parameters, a collection of probe or primer sequences with the desired T<sub>m</sub>s can be calculated.